

A. CLASSIFICATION OF SUBJECT MATTER Int.Cl ⁷ G01B11/00, G01N21/84, H05K13/04				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed Int.Cl ⁷ G01B11/00, G01N21/84, H051	by classification symbols) K13/04			
Documentation searched other than minimum documentation to the Jitsuyo Shinan Koho 1922–1996 Kokai Jitsuyo Shinan Koho 1971–2003	Jitsuyo Shinan Toroku Koh	o 1996–2003		
Electronic data base consulted during the international search (nam WPI	ne of data base and, where practicable, sea	rch terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category* Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.		
CD-ROM of the specification a the request of Japanese Utilit 11820/1993(Laid-open No. 720 (Sanyo Electric Co., Ltd.), 07 October, 1994 (07.10.94), Y Full text; Fig. 1 Full text; Fig. 1 (Family: none) Y JP 2001-304817 A (Juki Corp 31 October, 2001 (31.10.01), Par. Nos. [0010] to [0020]; (Family: none)	y Model Application No. 46/1994)	1,5-9 2-4 1,5-9		
Further documents are listed in the continuation of Box C. See patent family annex.				
* Special categories of cited documents: (A" document defining the general state of the art which is not considered to be of particular relevance (E" earlier document but published on or after the international filing date ("L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) ("O" document referring to an oral disclosure, use, exhibition or other means ("P" document published prior to the international filing date but later than the priority date claimed Date of the actual completion of the international search 19 September, 2003 (19.09.03) ("T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention document of particular relevance; the claimed invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family Date of mailing of the international search report 07 October, 2003 (07.10.03)				
Name and mailing address of the ISA/	Authorized officer			
Japanese Patent Office	Telephone No.			



Internal application No. - PCT/JP03/08231

аіедогу*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
Y	EP 1182919 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.), 27 February, 2002 (27.02.02), Page 3, line 56 to page 4, line 9; Fig. 5 & JP 2002-64296 A & US 2002-29486 A & CN 1339692 A	8,9
-		